

WHAT IS CLAIMED IS:

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1. ~~A method of processing an input from a touch plane operator input~~
device, comprising:

(A) determining a first location of a first touch on the touch plane
operator input device;

(B) determining a second location of a second touch on the touch
plane operator input device;

(C) comparing the first and second locations to obtain an
indication of an amount of difference between the first and second locations;
and

(D) determining whether the indication of the amount of difference
exceeds a predetermined amount;

wherein the determining steps (A)-(D) are performed by discrete
logic circuitry; and

wherein the discrete logic circuitry provides an event notification to a
microprocessor when the indication of the amount of difference exceeds the
predetermined amount.

2. A method according to claim 1,

wherein the predetermined amount comprises a first predetermined
amount in an X-direction and a second predetermined amount in a
Y-direction;

wherein the determining step (A) comprises determining an
X-location and a Y-location of the first touch;

wherein the determining step (B) comprises determining an
X-location and a Y-location of the second touch;

wherein the comparing step (C) comprises determining a first amount
of difference between the X-location of the first touch and the X-location of
the second touch, and determining a second amount of difference between
the Y-location of the first touch and the Y-location of the second touch; and

wherein the determining step (D) comprises comparing the first amount of difference with the first predetermined amount and comparing the second amount of difference with the second predetermined amount.

3. ~~A method according to claim 2,~~

wherein the step of determining the X-location and the Y-location of the first touch comprises acquiring a first plurality of data samples from the touch plane operator input device, calculating the X-location of the first touch by determining an average X-location for the first plurality of data samples, and calculating the Y-location of the touch by determining an average Y-location for the first plurality of data samples; and

wherein the step of determining the X-location and the Y-location of the second touch comprises acquiring a second plurality of data samples from the touch plane operator input device, calculating the X-location of the second touch by determining an average X-location for the second plurality of data samples, and calculating the Y-location of the touch by determining an average Y-location for the second plurality of data samples.

4. A method according to claim 1, further comprising displaying a mouse pointer moving from the first location to the second location on a display.

5. ~~A method according to claim 1, wherein the predetermined amount is defined by a perimeter of a region that surrounds the first location, and wherein the determining step comprises determining whether the location is outside the perimeter.~~

6. A method according claim 1, wherein the determining steps (A)-(D) are performed under the control of a state machine implemented in the discrete logic circuitry.

7. A method of processing operator inputs to a touch plane operator input device to emulate a hardware mouse, comprising:

(A) displaying a mouse pointer at a first location on a display;

(B) receiving an operator touch indicative of a desired second location for the mouse pointer on the display, the operator touch being received by a touch plane interface from a sensor system of the touch plane operator input device;

5 (C) comparing the first and second locations to obtain an indication of an amount of mouse pointer movement; and

(D) determining whether the indication of the amount of mouse pointer movement exceeds a predetermined amount;

wherein the steps (B)-(D) are performed by discrete logic circuitry;

10 wherein the discrete logic circuitry provides an event notification to a microprocessor when the indication of the amount of movement exceeds the predetermined amount.

8. A method according to claim 7, wherein the touch plane operator input device forms at least part of an operator interface of an internet access device.

15 9. A method according to claim 7, wherein the touch plane operator input device forms at least part of an operator interface of an industrial control system.

20 10. A method according to claim 7, wherein the touch plane interface is located on a system-on-chip integrated circuit chip, wherein the microprocessor is located on the integrated circuit chip.

11. A method according to claim 7, wherein the touch plane operator interface and the display in combination comprise a touch screen.

12. A method according to claim 7, wherein the touch plane operator interface comprises a touch pad.

25 *Sub a4* 13. ~~An integrated circuit comprising:~~

~~(A) a microprocessor;~~

~~(B) a touch screen interface, the touch screen interface being adapted to interface the microprocessor to a touch screen; and~~

(C) a digital signal processor, the digital signal processor being coupled between the touch screen interface and the microprocessor, the digital signal processor being adapted to determine a location of a touch on the touch screen, the digital signal processor including a comparator, the comparator comparing a new location of a touch to a previous location of a touch and issuing an event notification to the microprocessor if an indication of the difference between the previous location and the new location exceeds a predetermined amount.

14. A device comprising:

- (A) a touch screen, the touch screen including a touch screen display and a touch screen sensor system; and
- (B) an integrated circuit, the integrated circuit including
 - (1) a microprocessor;
 - (2) a touch screen interface, the touch screen interface being adapted to interface the microprocessor to a touch screen; and
 - (3) a digital signal processor, the digital signal processor being coupled between the touch screen interface and the microprocessor, the digital signal processor being adapted to determine a location of a touch on the touch screen, the digital signal processor including a comparator, the comparator comparing a new location of a touch to a previous location of a touch and issuing an event notification to the microprocessor if an indication of the difference between the previous location and the new location exceeds a predetermined amount.

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